

CSCAPE 2005: NOAA Ship McArthur II

Weekly Science Report – Leg 1b

21 July, 2005

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SCIENCE SUMMARY: 14 July – 20 July 2005

At the end of last week, as we continued to be plagued by the stubborn July fog, things looked a bit bleak for completing our National Marine Sanctuary transect lines. Nonetheless, I am happy to report that things look considerably better this week. The fog has been lifting earlier each day and winds have remained light, making for pleasant viewing conditions when we have been able to work. If the weather holds for two more days, it looks like we may actually finish the entire transect grid after all. Only downside is that we have had to curtail some of our other activities, like launching the small boat for photo-identification and biopsy sampling – however, we have still managed to pick up a few photos and biopsies ‘on the fly.’

As we’ve steamed along the transects, often in limited visibility of 1 mile or less, we have also confirmed that the Monterey Bay, Gulf of the Farallones, and Cordell Bank National Marine Sanctuaries are home to an amazing diversity and abundance of marine life. During the last week, we made nearly 300 cetacean sightings, with a single-day record of 110 yesterday (20 July). Our most commonly seen cetacean has been the humpback whale, followed by Risso’s dolphin, Dall’s and harbor porpoises, and Pacific white-sided dolphin. We’ve also been treated to some rarer species, such as Cuvier’s beaked whale, a Mesoplodon beaked whale (possibly *M. carlhubbsi*), a group of killer whales, and a few minke whales. Plus there have been dozens of pinnipeds, including large numbers of northern fur seals, California sea lions, and some elephant seals.

The bird life has also picked up considerably (see *Bird Buzz* below). We’ve particularly enjoyed the migrating shorebirds that have been cruising around the decks of our ship. Liz Zele was totally smitten by a tiny Least Sandpiper (“Can I keep it?”), and spent nearly an hour sitting on the winch deck watching it.

For the remainder of the trip, we hope to finish the transect lines before the winds pick up late Friday/Saturday. If possible, we will try to conduct some dedicated photo-identification and biopsy efforts in Monterey Bay on Saturday, where winds are expected to remain lighter. We’re all looking forward to successfully completing this leg, and to arriving in San Francisco on Sunday, July 24th.

Sightings and Effort Summary for Marine Mammals

Date	Start/Stop	Position Time	Total Distance	Avg. Beaufort
071405	1354	N35:40.42 W121:41.48	1.4 nmi	2.0
	1403	N35:39.90 W121:39.84		
071505	1259	N36:42.78 W121:51.89	36.5 nmi	3.4
	1901	N36:53.95 W122:45.16		
071605	1242	N36:52.47 W121:51.90	49.8 nmi	2.5
	2010	N37:12.24 W123:00.57		
071705	0614	N37:18.36 W123:06.79	59.8 nmi	2.3
	2017	N37:35.23 W122:52.27		
071805	1327	N38:04.10 W123:33.93	52.4 nmi	1.7
	1938	N37:46.97 W123:00.71		
071905	0630	N38:15.37 W123:40.82	60.6 nmi	1.4
	2030	N37:52.49 W123:29.15		
072005	0930	N36:44.23 W122:48.00	82.8 nmi	1.2
	2020	N36:13.14 W121:55.22		

CODE	SPECIES	WEEKLY TOTAL#	CSCAPE TOTAL#
017	Short-beaked common dolphin	-	1
021	Risso's dolphin	37	39
022	Pacific white-sided dolphin	21	79
027	Northern right whale dolphin	7	24
037	Killer whale	2	8
040	Harbor porpoise	32	57
044	Dall's porpoise	40	109
046	Sperm whale	-	4
049	Ziphiid whale	-	1
051	Mesoplodon sp.	2	4
061	Ziphius cavirostris	1	1
069	Gray whale	-	2
070	Balaenoptera sp.	1	3
071	Minke whale	4	5
074	Fin whales	4	11
075	Blue whale	3	11
076	Humpback whale	134	264
077	unid. dolphin	5	27
079	unid. large whale	4	21
096	unid. cetacean	1	2
TOTAL		298	673

Note: Pinnipeds not included; mixed groups are counted once for each species.

Biopsies (Juan Carlos Salinas, Tim O'Toole, Ernesto Vazquez)

<u>Species</u>	<u>Weekly</u>	<u>Cumulative CSCAPE</u>
Humpback whale	4	28
Blue whale	-	4
Fin whale	-	1
Sperm whale	-	11
Pacific white-sided dolphin	5	24
Northern right whale dolphin	3	8
Dall's porpoise	2	3
Killer whale	5	5
GRAND TOTAL	19	84

Photo-Project (Cornelia Oedekoven and Holly Fearnbach)

Well, the fog stayed and stayed and stayed – most of the week's photo effort consisted of opportunistic photos of passing humpback and fin whales, but we did have a few nice fog breaks with calm water. We were able to launch twice during the week. The first launch involved a cluster of humpbacks, while the second targeted a small group of killer whales. Biopsies and high quality ID photos were obtained in both. An interesting note is that one of the killer whales was observed with something "pink and white" in its mouth and a dead pinniped carcass was observed in the vicinity. However, no conclusions can be drawn as the carcass was fully intact, the whales passed by the carcass, and no additional slicks were observed. The fog finally cleared and the past two days have been busy with sightings. Over 20 humpback flukes were collected throughout the week, a single blue whale ID and some nice aerial photos of delphinids.

<u>Species</u>	<u>Weekly</u>	<u>Cumulative CSCAPE</u>
Humpback whale IDs	21	75
Blue whale IDs	1	11
Fin whale IDs	4	6
Sperm whale IDs	-	14
Killer whale IDs	7	53
Northern right whale dolphins*	1	6
Pacific white-sided dolphins*	3	10
Risso's dolphins*	4	5
Dall's porpoise*	-	1

*number of groups photographed

Bird Blurb (Sophie Webb, Rich Pagen and Peter Pyle)

It's been a busy week in the bird department. Good thing we finally have Rich back in full form. As we worked in waters over the shelf, there were good numbers of Sooty and Pink-footed Shearwaters, Common Murres, a small percentage with chicks, and

Rhinoceros Auklets. One big question is, “where are the Cassin’s Auklets?” We have seen very few of these little baseballs, not even at Cordell Bank where they are often numerous. The Red-necked Phalarope migration continues. We’ve seen our first few Sabine’s Gulls on their way south. So far, they all have been stunning adults with full dark gray hoods and yellow paint-tipped beaks. Shorebird migration has begun as well, with Lesser Yellowlegs, Whimbrels, Marbled Godwits, Sanderlings, and Western and Least Sandpipers. A pair of Black Turnstones spent part of one morning circling the ship and a Least and Western Sandpiper were seen creeping around amongst the winches on the back deck.

Oceanographic Operations (Mindy Kelley, Liz Zele, and Lacey O’Neal)

<u>Date</u>	<u>CTDs</u>	<u>Bongo tows</u>	<u>XBTs</u>
07/14	1	1	3
07/15	2	1	3
07/16	1	1	3
07/17	1	1	4
07/18	1	1	4
07/19	1	0	3
07/20	2	1	3